

# Diabetes--The Role of Diet and Exercise

26 Apr 1994

By Dr. Janet Kelly

Let's begin our discussion of diabetes with a quiz. The first question is: What is type II diabetes? (Aha! Those who can't answer didn't read the article on diabetes two weeks ago!) For the benefit of those who were out of town that week, the answer is: Type II diabetes is non-insulin dependent diabetes (high blood sugar) most often seen after the age of 30 and not associated with diabetes coma. It is, however, associated with other complications including heart attacks, stroke, blood vessel disease, foot ulcers, and cataracts.

Growing older certainly has its blessings and strong points. Now if we could just ward off the onset or effects of type II diabetes, we could eliminate one of the "drawbacks" of aging for some people. Of course we cannot do anything about the genes we were born with which might predispose us to diabetes. But let's take a look at what CAN be done to offset its effects.

An estimated 80% to 90% of type II diabetics are obese. Keeping your weight within

normal ranges is the first step toward controlling or delaying the onset of type II diabetes. There is a common misconception that eating too many carbohydrates "causes" diabetes. In reality diets high in carbohydrates improve glucose tolerance in healthy subjects and reduce, or at least do not increase, high blood sugar in patients with diabetes. Accordingly, it is now recommended that a person consume 50% to 60% of their total calories in carbohydrates, 12% to 20% in protein and 30% in fats.

The way in which carbohydrates are processed seems to be more important than whether or not it comes in the form of simple carbohydrates (sugar) or complex carbohydrates (starches). Raw starches consistently result in lower blood sugars than refined or cooked starches.

People with a high sugar diet appear to have an increase only of dental caries. Thus, it is more important for the obese diabetic to focus his or her efforts on restricting total calories rather than to follow the mistaken notion that avoiding "sugar" is therapeutic.

Recently fiber in the diet has received a lot of attention. It appears to be able to lower to some degree both the blood sugar and cholesterol. This may be because fibrous foods pass out of the stomach and bowel more quickly. It is good advice to increase your intake of plant fibers including whole grains, fruits, and vegetables, especially legumes (peas and beans).

Exercise is the second area in which we can do something to help prevent the onset of type II diabetes or treat it once it appears. It is a known fact that the blood sugar levels of diabetics go down after an exercise training program. Additional benefits of exercise are decreased cholesterol, improved fitness, increased heart capacity, lowered blood pressure, and reduced weight.

If a person already has type II diabetes and is showing some of the complications of the disease, he should consult his doctor before starting an exercise program. Eye disease, foot disease, or heart disease caused by diabetes may make strenuous exercise impossible.

Exercise may actually correct one of the causes of type II

diabetes. Since most people with type II diabetes have enough insulin but can't use it properly, some scientists believe that these people have become resistant to insulin. Regular exercise seems to fight this resistance and lets the body's own insulin work more effectively to utilize sugars and starches. This, in turn, lowers blood sugar levels.

Like any other exercise program, you should begin gradually and build your tolerance up. Once a desired level of fitness is achieved, three exercise sessions per week are enough to maintain that fitness.

Losing weight, changing your diet, and getting regular exercise are the keys to controlling your blood sugar levels. Although your doctor and dietary counselor can prescribe a diet and exercise plan that will help you achieve this goal, it's up to you to carry out their instructions.

*Dr. Kelly is a board certified family practitioner and Assistant Professor with the Department of Family Medicine at the University of Utah. She has recently opened an office in Heber at 570 E. Center Street.*



## Right To Know

### NOTICE OF MEETING CHANGE

The regularly scheduled meeting of the Heber City Council, which was to be held on April 25, 1984 has been cancelled. The next regularly scheduled council meeting will be held on May 9, 1984. Meeting time 7:00 p.m.

Eleanor J. Duke,  
Clerk-Recorder

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### NOTICE OF SPECIAL BOND ELECTION

TO ALL QUALIFIED ELECTORS OF WASATCH COUNTY, UTAH:

PUBLIC NOTICE  
S HEREBY GIVEN  
that on Tuesday, the  
5th day of May, 1984,  
a special bond election  
will be held in Wasatch  
County, Utah, at the  
polling places set out  
below, for the purpose  
of submitting to the  
qualified electors of  
Wasatch County the  
following proposition:

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North Elementary School, 101 East 200 North  
Heber City, Utah

Judges:

Ella Berg  
Kim Duke  
Melba Chapman

Alternate Judge:

Florence Whiting

14

J.R. Smith Elementary School  
196 East 500 North  
Heber City, Utah

3

Wasatch County Courthouse, Commission Room, 25 North Main  
Heber City, Utah

Judges:

Betty Clyde  
Doris Gates  
Margarette Archibald

Alternate Judge:

Helen Fillmore

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Wasatch County Library  
188 South Main  
Heber City, Utah

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Grant Casper Residence, Fifth house on South Side of 3000 South Street, going West from Daniel Rd. (050 West), Box 509,  
Daniel, Utah

Judges:

Elnore Casper  
Elaine Murdock  
Darlene Luke

Alternate Judge:

Betty Cummings

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Heber City Offices  
37 East 100 North  
Heber City, Utah

Judges:

Afton Thacker  
Melba Lenzi  
Vera Rasband

Alternate Judge:

Leah Lindsay

The voting at such special bond election shall be by ballot, which ballots will be furnished by the County Clerk to the Judges of election, to be by them furnished to the qualified electors.

The polls at the aforesaid polling places shall be opened on the day of the election at the hour of 7:00 o'clock A.M. and shall remain and continue open until the hour of 8:00 o'clock P.M. on said day.

There will be no special registration of voters for such election and the official register last made or revised

qualified elector. The County Clerk will make available at each of the above-described polling places a registration list or copy thereof listing all registered electors of Wasatch County entitled to use such polling places to vote at the election.

Absent-voter ballots may be obtained by any person otherwise eligible to vote at the special bond election but who, on the day of the election, expects to be temporarily absent from Wasatch County, or who is disabled, by making application, in the manner and time